OFFICE OF
INSPECTOR GENERAL

MEMORANDUM

Date: May 2, 2008

To: Mary F. Santonastasso
             Division Director, Division of Institution and Award Support
             (BFA/DIAS)

             Karen Tiplady
             Division Director, Division of Grants and Agreements (BFA/DGA)

From: James J. Noeth
             Deputy Associate Inspector General for Audits

Subject: OIG Report Number 08-1-010
             Audit of Effort Reporting System, University of California – San Diego

Attached is the final report prepared by McBride Lock & Associates, an independent public accounting firm, on the audit of the payroll distribution and effort reporting system used by the University of California, San Diego (UCSD) to support salary and wages charged to NSF grants. The University's comments to the draft report have been summarized after the recommendations for each audit finding and the auditor's response has been provided to these comments. The full text of the University's comments is included as Appendix B to the audit report.

The audit found that UCSD generally has a well established and sound Federal grants management system. Officials in the University's central grants administration offices, internal audit office, and Academic Departments take seriously their responsibility to ensure employee salary charges to Federal sponsored projects reasonably reflected the actual work performed. However, because the University has decentralized many of its grants management functions to the Academic Departments, UCSD needs to improve its internal controls to ensure proper implementation and oversight of its labor effort reporting system. Without timely or appropriate controls for certifying labor effort reports, UCSD has less assurance that the certifications are reliable and reasonably support salaries and wages charged to NSF's sponsored projects.

We consider UCSD's internal control procedural weaknesses identified in the audit findings to be significant. Accordingly, we request that your office work with the University and the cognizant audit agency, the Department of Health and Human Services (DHHS), to develop a written Corrective Action Plan detailing specific actions taken and/or planned to address each

audit recommendation. Milestone dates should be provided for corrective actions not yet completed.

To help ensure the recommendations are resolved within six months of issuance of the audit report pursuant to Office of Management and Budget Circular A-50, please coordinate the development of the Corrective Action Plan with our office during the resolution period. Each audit recommendation should not be closed until NSF, in coordination with DHHS, determines that UCSD has adequately addressed the recommendation and proposed corrective actions have been satisfactorily implemented. Please note that we have sent a copy of the audit report under separate cover to Jon D. Crowder of DHHS-OIG.

OIG Oversight of Audit

To fulfill our responsibilities under Generally Accepted Government Auditing Standards, the Office of Inspector General:

- Provided a detailed audit program for the agreed upon procedures review and ensured M.D. Oppenheim's approach and planning for the audit was appropriate;
- Evaluated the qualifications and independence of the auditors;
- Monitored progress of the audit at key points by accompanying McBride Lock & Associates auditors onsite at the grantee;
- Coordinated periodic meetings with McBride Lock & Associates and OIG management to discuss audit progress, findings, and recommendations;
- Reviewed the audit report, prepared by McBride Lock & Associates, to ensure compliance with Generally Accepted Government Auditing Standards and the NSF Audit Program; and
- Coordinated issuance of the audit report.

McBride Lock & Associates is responsible for the attached audit report on UCSD's payroll distribution and effort reporting system and the conclusions expressed in the audit report. The NSF OIG does not express an opinion on the audit report's conclusions.

We appreciate the cooperation that was extended to us during our review. If you have any questions, please feel free to call me at 703-292-5005 or James M, Berry Schneck at 703-292-8627.

Enclosure

cc: Gilbert Tran, Technical Manager, Office of Management and Budget
      Thomas Cooley, Director and Chief Financial Officer, BFA/OAD
      Alexander Wynnyk, Branch Chief, BFA/DIAS
      Charles Zeigler, Special Assistant, BFA/DIAS

Audit of Payroll Distribution System

University of California, San Diego
San Diego, California

National Science Foundation
Office of Inspector General

May 2, 2008
OIG 08-1-010

EXECUTIVE SUMMARY

This audit report provides the results of our review of the Payroll Activity Report (PAR) system used by the University of California, San Diego (UCSD) to validate salaries and wages charged to National Science Foundation (NSF) grants. In fiscal year (FY) 2006, UCSD had total Federally-sponsored projects of approximately $733 million, of which $104 million, or about 14 percent, were funded by NSF. Of this amount, more than $28 million, or 27 percent, were for labor costs directly charged to NSF awards. This audit is one of a series of Office of Inspector General (OIG) reviews of the labor effort distribution systems being conducted at NSF's top-funded universities, in order to assess the adequacy of internal controls to ensure salary and wage costs claimed on NSF grants are properly managed, accounted for and monitored.

Our review disclosed that UCSD generally has a well established and sound Federal grants management system. Officials in the University's central grants administration offices, internal audit office, and Academic Departments take seriously their responsibility to ensure employee salary charges to Federal sponsored projects reasonably reflected the actual work performed. Such officials were generally knowledgeable of their labor effort reporting responsibilities and appear diligent in accomplishing their assigned tasks. Review of 30 sampled employees found that PAR effort certifications generally supported the FY 2006 salary costs of $1.2 million directly charged to NSF grants.

However, because UCSD has decentralized its grant management functions and responsibilities to the Academic Departments, improved internal controls were required to ensure proper oversight and implementation of its PAR labor effort reporting system. Without sufficient controls, we found that (i) 60 of the 69 PARs, representing 64 percent of FY 2006 salaries tested, were certified late or were not dated and (ii) six PARs were not signed or did not include proper confirmation of the reported labor effort. In addition, four of the 30 sample employees reported during interviews that 5 to 20 percent of their labor effort was expended on administrative activities not directly benefiting NSF awards, while an additional three employees charged salaries to sponsored projects exceeding NSF's faculty summer salary limitations or UCSD's incentive award policies.

Without timely or effective controls for certifying labor effort reports, UCSD can provide less assurance to Federal sponsoring agencies that PARs are reliable in reasonably supporting salary charges to sponsored projects. As a result, we identified that UCSD inappropriately charged $35,050 (three percent) of salary charges to NSF awards for activities not directly benefiting the sponsored projects and $16,267 (one percent) for salaries exceeding NSF or University compensation policies. In addition, UCSD lacked adequately completed PAR certifications to support an additional $49,595 (four percent) of FY 2006 NSF salary charges reviewed. Furthermore, late PAR certification or inadequate documentation to determine approval dates for 64 percent of NSF salary charges reviewed increases the risk that such certifications are not reliable, particularly given that 11 percent of such labor costs were certified more than six months late or were not dated. The significant nature of these control weaknesses raises concerns about the reasonableness and allowability of the remaining $27.5 million of FY 2006 labor charges to NSF grants, and could affect the reliability of the salary portion of UCSD's other $629 million of Federal awards.

These weaknesses occurred because UCSD has not established adequate internal controls to provide for effective management and oversight of its labor effort reporting system given its

decentralized organizational structure for Federal grants management. The University has not established sufficient detailed written guidance for all PAR processes to ensure full compliance with Federal requirements, effectively communicated University policies and procedures to all staff involved in the PAR process, or performed adequate monitoring to ensure all UCSD Departments complied with established PAR policies and procedures. Furthermore, contrary to Federal standards, the University has not a performed an appropriately broad-based and frequent independent internal evaluation to ensure the payroll distribution and effort reporting system's effectiveness, thereby forfeiting an opportunity to identify and address any needed improvements

To address the noted weaknesses, we made recommendations to improve UCSD's internal control structure for PAR management and oversight. The recommendations were primarily directed toward enhancing the University's centralized oversight of the labor effort reporting system by (i) updating and revising campus policies to fully comply with Federal regulations, (ii) improving its communication of labor effort reporting policies and processes to campus personnel, and (iii) performing periodic broad-based evaluations of the labor effort reporting system. Also, UCSD has a current opportunity, as it completes the implementation of its new automated labor effort reporting system, to incorporate edit functions and adopt computer-assisted audit techniques. Such electronic monitoring tools should significantly improve the timeliness of the PAR labor effort certification process and allow the University to detect and eliminate the instances of incomplete PAR labor certifications identified during our audit.

A draft audit report requesting comments on the findings and recommendations was issued to UCSD. The University mainly concurred with the audit findings and recommendations and agreed to implement the necessary changes to its policies and procedures. UCSD's proposed actions, once implemented, should address our audit recommendations. NSF should work with the cognizant audit agency to ensure the University develops an acceptable corrective action plan to resolve each audit recommendation. We have summarized the University's responses and provided our comments after each recommendation in the report. Also, UCSD's comments to the draft report are included in their entirety as Appendix B to this report.

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ACRONYMS

NSF	National Science Foundation
OIG	Office of Inspector General
OMB	U. S. Office of Management and Budget
PAR	Personnel Activity Report
PI	Principal Investigator
AMAS	Audit and Management Advisory Services
Calit2	California Institute for Telecommunications and Information Technology
OCGA	Office of Contract and Grant Administration
OPAFS	Office of Post Award Financial Services
SDSC	San Diego Supercomputer Center
SIO	Scripps Institution of Oceanography
UCSD	University of California, San Diego

INTRODUCTION

<u>BACKGROUND</u>

Approximately one-third of the National Science Foundation (NSF) award funds are provided to universities for salary and wages, amounting to about $1.3 billion annually. Also, in recent years, there have been several civil settlements involving overcharges of labor costs to Federal grants at several major universities, amounting to millions of dollars, including some funded by NSF. Because of these legal actions and the material amounts of labor costs paid from NSF awards, the Office of Inspector General (OIG) is undertaking a series of reviews of the labor effort distribution systems at NSF's top-funded universities in order to assess the adequacy of internal controls to ensure salary and wage costs claimed on NSF grants are properly managed, accounted for, and monitored. This audit, involving the University of California, San Diego (UCSD), is one of the planned reviews of such labor effort distribution systems.

The University is located in La Jolla, California on 1,200 acres along the Pacific Ocean in San Diego County. UCSD's fundamental missions are teaching, research, and public service. Total student enrollment, as reported in the 2006 Annual Report, consisted of 21,369 undergraduate and 4,878 graduate and medical students. The University has 24,661 employees, including 7,319 faculty and other academic staff. UCSD derives the majority of its funding from sponsored research projects, student tuition, and state subsidies.

UCSD is a major research institution, with total FY 2006 research funding of $733 million, of which $104 million was provided by NSF. The National Research Council ranks UCSD 10th in the nation in the quality of its faculty and graduate programs and ranks the University's oceanography and neurosciences programs 1st in the nation. Specifically, UCSD's graduate and professional schools include the Scripps Institution of Oceanography (SIO), the San Diego Supercomputer Center (SDSC), and the California Institute for Telecommunications and Information Technology (Calit2), all of which receive substantial NSF funding.

The University's management and oversight of Federal grant programs is shared between its Office of Contract and Grant Administration (OCGA) and the Office of Post Award Financial Services (OPAFS). Primarily, OCGA is tasked with pre-award grant activities involving grant proposal review, proposal submission, award negotiation, and award acceptance. On the other hand, OPAFS provides post-award grant administration, and thus is responsible for financial administration and monitoring of active Federal awards. Specifically, the Office is responsible for (i) monitoring and assisting with campus regulatory compliance, (ii) implementing appropriate employee grants management training programs, and (iii) handling Federal grant cost allowability issues. Also, OPAFS is responsible for compiling and distributing the Personnel Activity Reports (PAR) to all appropriate Departments to provide for the certification of actual work effort devoted to Federally-sponsored projects. PARs are used for labor effort certifications in all UCSD Academic Departments, except SIO, on a quarterly basis. SIO personnel are required to record their daily effort on timesheets that are totaled, submitted, reviewed, and approved monthly. The monthly timesheets are used in lieu of the quarterly PARs to provide support for labor charges to Federal sponsored projects.

Within each Academic Department, senior grants administrative officials are tasked with the management and oversight of sponsored projects to ensure compliance with Federal and University policies and procedures. Such officials typically assist and advise faculty members

with the management of Federal grants and are responsible for ensuring that award accounts and budgets are created accurately in the University's financial system, award expenditures are monitored on a monthly basis, and charges to Federal awards are appropriate. They also ensure that PIs confirm the reasonableness of employee salary charges on PARs for themselves and the employees working on their sponsored research projects. Nevertheless, PIs have primary responsibility for all aspects of Federal grants including approval of all charges and ensuring that the research is conducted in accordance with the award terms and conditions.

OBJECTIVES, SCOPE, AND METHODOLOGY

Audit Objectives. Our audit objectives were to: (a) evaluate whether UCSD internal controls are adequate to properly manage, account for, monitor, and report salary and wage costs on NSF grants in accordance with OMB and NSF grant requirements and (b) determine if salaries and wages charged to NSF awards are allowable, allocable, and reasonable in accordance with Federal cost principles and NSF award terms and conditions.

Scope and Methodology: The audit effort focused on UCSD's Personnel Activity Report (PAR) system and accordingly included the review of internal controls for ensuring that labor costs charged to NSF (i) were actually incurred, (ii) benefited NSF awards, (iii) were accurately and timely recorded and charged to NSF, and (iv) were for allowable and allocable-type activities as required by Federal and NSF requirements. In addition, the level of PI effort pledged in grant proposal and award documents was evaluated in relation to the effort actually contributed by the faculty member to accomplish award objectives.

To address each of these control objectives, the NSF-OIG engaged a statistician to provide expert advice in selecting a statistical sample of employee salary records for testing. The use of statistical tools and methodology will enable projecting the audit results to the entire population of universities to be included in the planned reviews of payroll distribution systems nationwide. However, due to the small statistical sample size of 30 employees tested, we are not able to make any projections to the total UCSD population of labor costs charged to NSF grants. Specifically, the FY 2006 salary and wage costs for the 30 sample employees tested amounted to $1,194,918. Of the 30 sample employees, 23 individuals submitted 69 PARs certifying labor effort for 75 percent of total salaries tested and seven individuals used monthly time records, for which confirmation was not required. Our statistical sample was derived from a total population of 1,636 UCSD employees, who charged salaries of $28,673,611 to NSF grants during FY 2006. This population excluded (a) any employee with total salary costs of $100 or less and (b) all salary charges for undergraduate students. These amounts were excluded because of their small dollar value and the difficulty in locating undergraduate students for personal interviews.

We compared UCSD's policies and procedures to Federal and NSF requirements for allocating labor costs to Federal awards, and we interviewed UCSD personnel to gain an understanding of the controls in place to ensure salary and wages charged to NSF awards were reasonable and allowable. For each statistically selected salary record, we obtained the following documentation to determine whether labor costs UCSD charged NSF awards met the control objectives:

- PAR effort reports or time records documenting 100 percent of each employee's compensation allocated to sponsored and non-sponsored projects for each reporting period.

- Appointment letters or other documents supporting the approved annual salary for employees.

- Distribution of Payroll Expense Summary detailing the actual salary and wages charged to sponsored projects and other activities for each employee during each reporting period.

- Award documents to determine whether the grant had any terms and conditions that would affect allowable labor charges to the award.

To ensure that salary and wage costs charged to NSF awards were incurred and benefited NSF awards, we corroborated the information on PAR reports and monthly time records by interviewing the 30 sampled employees. We inquired whether (a) the labor charges documented were actually incurred on projects and activities, (b) the approximate percentage of effort actually worked on each sponsored project and/or activity was reasonably consistent with NSF labor charges, and (c) the type of work performed on NSF projects was generally consistent with the scope of the awards. We also interviewed selected administrative grants managers in Academic Departments to determine procedures for processing and monitoring employee salary charges to Federal grants. Additionally, we interviewed selected PIs to determine the number of projects and personnel they were responsible for and their processes for verifying work performance prior to approving and signing PAR effort reports.

To confirm that faculty effort pledged in grant proposals was actually contributed to accomplish grant objectives, we reviewed processes for reporting and tracking PI effort and whether the associated salary costs were properly included in the research organized base for computation of the University's indirect cost rate. We reviewed award documents for all Federal grants that a faculty member worked on during FY 2006 to determine the effort pledged on each project and compared this proposed effort to the approximate percentage of actual effort worked on the project. In addition, we determined whether and how UCSD tracked and documented PI effort on sponsored projects when no faculty salary support was requested or reimbursed by the Federal Government.

To determine whether labor costs were accurately recorded and charged to NSF, we compared the amounts in appointment letters or other documentation supporting salaries and wages paid to the amounts recorded in the UCSD Distribution of Payroll Expense Summary for each individual in our selected sample. We recalculated salary and wage costs charged to NSF projects by using the salary shown on supporting documentation and apportioning it by the period of time represented on the PARs or monthly time records. We also reviewed labor transactions to determine whether UCSD followed Federal, NSF, and University requirements applicable to charging labor costs to NSF projects.

Timeliness is an important aspect of the PAR labor effort reporting system because certifications of actual effort are made after the reporting period, and thus timely PAR review and approval impacts the reliability of the certification. To evaluate whether UCSD officials approved and signed PARs in a timely manner, we compared the date the PAR reporting period ended to the date the reports were approved and signed. Timeliness was based on UCSD's internal policy requiring (i) an approximate two-month adjustment period to complete the closing process, (ii) a two-week period for OPAFS to generate and distribute the PARs to the Academic Departments, and (iii) a 15-day period from date of PAR printing to certification by the PI or other designated responsible official.

Finally, we reviewed prior audit reports on UCSD's Federal grants management program performed by OMB Circular A-133 auditors and the University's internal auditors to determine whether there were any audit findings and recommendations on the labor effort reporting system. Specifically, we interviewed Internal Audit staff and reviewed the working papers, as needed, to gain an understanding of the scope and procedures used in their audits of UCSD's payroll distribution reporting system and/or University management of labor costs charged to Federal projects. Review of A-133 audit reports was performed to ascertain the actual audit scope and the audit procedures used to support any findings of noncompliance or internal control weaknesses relating to payroll distribution or effort reporting.

Onsite audit work at the UCSD campus was performed during a 2-week period in May 2007 and an additional 4-week period in September and October 2007. The remainder of the audit work was completed through phone interviews, emails, and documentation requests through January 2008. We were engaged to conduct the audit by the NSF-OIG, and the audit was conducted in accordance with the Comptroller General's *Government Auditing Standards* and accordingly included such tests of accounting records and other auditing procedures, as we considered necessary, to fully address the audit objectives.

FINDINGS AND RECOMMENDATIONS

1. Insufficient Administrative Oversight of the University's PAR System Affects Reliability of Effort Reports

Federal regulations require that salary and wage charges to sponsored projects be supported by labor effort reports signed and approved by the employee or an official who is in a position to know whether the work was performed. Such reports are required to represent 100 percent of an individual's activity and provide after-the-fact confirmation or determination that the reported effort reasonably represents the actual employee effort expended on sponsored projects. Although Federal requirements do not specify when a labor effort report should be completed, University officials should provide the after-the-fact confirmation as close to the end of the reporting period as possible to ensure its reliability.

Our review of 30 sampled employees disclosed that UCSD's labor effort reports generally support the FY 2007 salary costs of $1,194,918 directly charged to NSF grants. However, UCSD needs to improve its internal controls for its Personnel Activity Report (PAR) system, used by 23 or the 30 sample employees,[1] to ensure after-the-fact effort certifications are timely and reliable for confirming the reasonableness of the actual work performed on Federal sponsored projects. Our review of the 69 PAR certifications for 23 sample employees and monthly time sheets for the remaining seven employees disclosed the following control weaknesses:

- Sixty of the 69 PARs, representing 64 percent of total NSF salary charges tested, were certified 5 to 516 days late after the University's due date or lacked a documented certification date.

- Two of the 23 employees submitting PARs had six effort certification reports that were either not signed or did not include the proper confirmation of the reported labor effort on NSF projects.

- Four employees reported 5 to 20 percent of their labor effort as expended on administrative activities not directly benefiting the NSF sponsored projects.

- Three employees improperly charged salaries to sponsored projects exceeding NSF's faculty salary limitations or UCSD's incentive award policies.

Without adequate controls for certifying labor effort reports, UCSD can provide less assurance to Federal sponsoring agencies that PARs are reliable in reasonably supporting salary and wages charged to sponsored projects. Specifically, the University overcharged (i) $35,050 (three percent) of salary charges to NSF awards for activities not directly benefiting the sponsored projects and (ii) an additional $16,267 (one percent) for salaries exceeding NSF or University compensation policies. In addition, UCSD lacked adequate PAR certifications to support an additional $49,595 (four percent) of FY 2006 NSF salary charges reviewed. Furthermore, late PAR certification or inadequate documentation to determine approval dates for 64 percent of NSF salary charges reviewed increases the risk that such certifications are not reliable, particularly given that 11 percent of such labor costs were certified more than six months late or were not dated. The significant nature of these control weaknesses raises concerns about the

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[1] The remaining seven employees worked in SIO and used monthly time sheets to validate their salary charges to NSF projects.

reasonableness and allowability of the remaining $27.5 million of FY 2006 labor charges to NSF grants, and could affect the reliability of the salary portion of UCSD's other $629 million of Federal awards.

These weaknesses occurred because UCSD has not established adequate internal controls to provide for effective management and oversight of its labor effort reporting system. Specifically, the University has not updated its PAR timeliness standards in recent years or defined work activities included in "institutional base salary" for its employees as needed to clarify which of those activities are not allowed to be charged to Federal sponsored projects. Also, given the decentralized nature of the UCSD's Federal grants management program, it is essential that University administration adequately communicate the Federal and UCSD policies and procedures for which individual Departments are responsible and ensure cognizant personnel receive adequate training on the labor effort reporting process. All UCSD Departments need to fully understand and comply with established PAR procedures and processes. In addition, the University has not performed a sufficiently comprehensive independent internal evaluation of its labor effort reporting system, as Federally mandated, to ensure its effectiveness and full compliance with Federal requirements, forfeiting an opportunity to identify and address needed improvements.

OMB Requirements for Labor Effort Reporting

OMB Circular A-21, *Cost Principles for Educational Institutions,* requires certification of labor effort/activity contributed by employees on Federal awards. Specifically, paragraph J.10.b requires that wages and salaries charged to NSF awards reasonably reflect the actual labor effort contributed by the employee to meet the objectives of the award. While a university can initially charge NSF awards based on estimates of labor effort that are expected to be contributed, the University is expected to subsequently confirm that the level of effort reported was consistent with the actual effort expended. Accordingly, the system must provide for after-the-fact confirmation of employee activity by a responsible person with "suitable means of verification that the work was performed." The Circular also requires that the University provide for periodic independent internal evaluations to ensure the system's effectiveness and compliance with the Federal standards.

Furthermore, paragraph A.2.d. of Circular A-21 recognizes that each institution "should employ sound management practices" in applying the Federal cost principles for charging costs on sponsored projects. Specifically, "the recipient institution is responsible for ensuring that costs charged to a sponsored agreement are allowable, allocable, and reasonable under these cost principles" and "must provide for adequate documentation to support costs charged to sponsored agreements."[2] Thus, UCSD is required to have written procedures to ensure costs charged to sponsored projects are in full compliance with Federal cost principles and the terms and conditions of the sponsored agreement.

Consistent with the Circular A-21 requirement for "sound business management practices," OMB Circular A-110, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organization,*[3] requires entities

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[2]   Paragraphs C.4.d.(1) and A.2.e., respectively, of OMB Circular A-21, *Cost Principles for Educational Institutions.*

[3]   Section .21 of OMB Circular A-110, requires that a grantee's financial management system provide for "Effective control over and accountability for all funds, property, and assets. . . written procedures for determining the

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receiving Federal awards to establish and maintain internal controls that are designed to reasonably ensure compliance with Federal laws, regulations, and program compliance. Further, OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*, defines internal controls as a "process effected by an entity's management and personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories: (1) Effectiveness and efficiency of operations; (2) Reliability of financial reporting; and (3) Compliance with applicable laws and regulations." Internal control is considered a major part of managing an organization and comprises the plans, methods, and procedures used to meet missions, goals, and objectives. Management sets the objectives, puts the control mechanisms in place, and monitors, and evaluates whether the control is operating as intended. People are what make internal control work, thus sufficiently trained personnel in an organization and clear job descriptions and responsibilities are critical elements of a successful internal control program.

UCSD's Payroll Activity Reporting System

Pursuant to the OMB Circular A-21 requirements, UCSD utilizes Personnel Action Reports (PARs) or monthly timesheets to document the after-the-fact certification of the reasonableness of employee salary charges to Federal sponsored projects. Of the 30 sample employees, 23 participated in the PAR certification process and seven submitted monthly time records. The Office of Post Award Financial Services (OPAFS) is responsible for compiling and distributing the PARs to each Academic Department on a quarterly basis. The employee, project PI, or a responsible person with "firsthand knowledge of the work performed" is required to review and approve the reported labor effort on the PARs. Each Department is responsible for retaining the original signed PARs and providing copies to the OPAFS. The University's quarterly PAR distribution schedule follows:

Quarter	Months included	Run date	Date mailed
Summer	July, August, September	November ledger close	December
Fall	October, November, December	February ledger close	March
Winter	January, February, March	May ledger close	June
Spring	April, May, June	August ledger close	September

UCSD's timeliness standard, drafted in 1984, requires the PARs to be returned to OPAFS within 15 days of receipt. However, the PAR itself requires the certified report to be returned to OPAFS 15 days from the printing date.

PAR Certifications Need to be More Timely and Adequately Support Labor Charges

Although Federal regulations do not specify when labor effort reports should be reviewed and certified, UCSD has established timeframes for review and approval of PARs to ensure a timely and reliable certification process. From each quarterly reporting period, the University allows 15 days from the printing date to distribute and obtain PI review and approval. In addition to signing the report, PAR procedures require the certifying officials to include a separate notation of the actual effort worked on each sponsored project, even if such effort is the same as the printed figure on the PARs. However, review of 69 PARs disclosed that (i) 60 reports were submitted late

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reasonableness, allocability and allowability of costs in accordance with the provisions of the applicable cost principles and terms and conditions of the award."

or not dated and (ii) six reports were either not signed or did not include the proper certification of the reported NSF labor effort.

Late Effort Reports

Specifically, for 54 of the 69 PARs reviewed, representing $707,541 (59 percent) of total NSF labor charges tested, UCSD certifying officials did not approve the PARs within the 15-day turnaround period, and in 9 instances, took from 226 to 516 days, to complete the certification. In addition, six PARs were not dated, thus precluding an evaluation of certification timeliness for an additional $53,763 or five percent of NSF salary charges reviewed. Recognizing that 7 of the 30 sampled employees did not participate in the quarterly PAR effort reporting system, our review disclosed that 22 out of 23 PAR personnel (96 percent) submitted one or more reports after the University's established due date. The following table summarizes the number of days beyond the 15-day turnaround time that officials took to review and approve their PARs.

Number of Days Certified After UCSD Due Date				
Days Late	**# PARs**	**% of Total PARs Reviewed**	**Applicable Salaries**	**Percentage of Total Salaries Reviewed**
1 - 30	24	35%	$406,211	34%
31-60	4	6%	30,231	3%
61-90	15	22%	176,674	15%
91-120	1	1%	5,195	< 1%
121-150	1	1%	16,750	1%
151-180	N/A	N/A	N/A	N/A
> 180	9	13%	72,480	6%
PARS Certified Late	**54**	**78%**	**$707,541**	**59%**
Not Dated	6	9%	53,763	5%
Subtotal	**60**	**87%**	**761,304**	**64%**
PARS Certified On-Time	9	13%	140,476	12%
PAR Totals	**69**	**100%**	**$901,780**	**76%**
7 Sampled Employees Not Using PARs Certifications	N/A	N/A	293,138	24%
Total Salaries Reviewed	**N/A**	**N/A**	**$1,194,918**	**100%**

Timely PAR approval is essential to ensure labor charges to NSF grants are reliable because certifying officials are generally relying on their memories when approving reported work activity for themselves and the individuals that work for them. UCSD officials must remember as far back as six and a half months[4] to confirm such employee activity. PIs can have multiple awards and many employees for whom they are responsible, which increases the risk that the PI's memory of the amount and type of activities performed will be less reliable as time increases past the established due date. Thus, limiting the review and certification of PARs to the shortest amount of time possible helps ensure a more reliable certification of labor costs associated with such activities on Federal awards.

Incomplete Effort Reports Result in Lack of Adequate Certification for NSF Salary Charges

Of the 69 PARs reviewed, six reports (nine percent) did not provide adequate documentation to validate the actual work performed by two sample employees on NSF projects. Specifically, contrary to the University's PAR procedures, (i) one employee did not sign his four quarterly PARs to confirm the reasonableness of $40,020 of salary charges and (i) a second individual did not provide the separate notation of his actual effort for $9,575 of NSF salary charges. As a result, a total of $49,595, or four percent of the FY 2006 salary charges tested, lacked sufficient documentation to support the reasonableness of actual effort devoted by the two employees to the NSF projects charged. While we were able to independently validate that the two employees actually worked on the subject NSF projects by interviewing other key personnel in the applicable Departments, such oversights in properly approving PARs can lead to inaccurate labor effort reporting and should not be overlooked by UCSD management. University officials stated that, when its new automated effort reporting system becomes fully operational in the spring of 2008, such errors will be automatically detected and the effort report rejected.

Administrative Time Incorrectly Charged Direct to NSF Awards

Interviews of the 30 sampled employees identified four UCSD employees who incorrectly charged 5 to 20 percent labor effort to NSF projects for time spent on administrative functions that did not directly benefit the NSF grants. These activities included employee time spent working on writing grant proposals and/or participating in University committees and totaled $35,050 (three percent) of the NSF salary charges reviewed (see Appendix A-1). Specific details for the four employees follow:

- A PI and a staff member, both funded 100 percent by NSF, estimated spending 10 to 15 percent of their time writing grant proposals, peer reviewing grant proposals for Federal sponsoring agencies, or working on University committees.

- Another PI was 100% funded by Federal sponsored projects (68 percent by NSF), but estimated spending 20 percent of his time writing grant proposals.

- A programmer analyst was funded 100 percent by sponsored projects (50 percent by NSF), but estimated 5 percent effort was spent assisting in the grant proposal writing process.

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[4] For the quarterly PARs, the amount of time certifying officials have to recall work activities is a minimum of 6.5 months because the report period covers three months, compilation and distribution takes about three month, and approval and return takes 15 days.

Of particular concern, several of the subject employees interviewed, representing three different departments, stated that this problem occurred because the University has not established job cost accounts for their use when performing administrative-type work such as grant proposal writing and University committees. Therefore, time spent on these unrelated activities was incorrectly charged to NSF and other Federal projects, rather than to University funds or as part of its Facilities and Administrative costs as required by Federal regulations. Given that UCSD had total FY 2006 Federal grant expenditures of $733 million, of which 27 percent[5] was for salaries and wages, such improper charges for PIs and other staff working on such administrative-type tasks could be significant.

Salary Charges Exceed NSF and UCSD Compensation Limitations

UCSD improperly charged salaries for three sample employees that did not comply with NSF's salary limitations for faculty members or the University's incentive award policies. Such noncompliance resulted in unallowable salary costs being charged to NSF sponsored projects.

NSF's Two-Ninths Rule

NSF's policy for funding faculty salaries states that ". . . funding of summer salaries (known as NSF's two-ninths rule) . . . will not include funding for an individual investigator which exceeds two-ninths of the academic year salary. This limit includes summer salary received from all NSF-funded grants."[6] However, during the summer of 2005, one PI improperly charged three summer months of compensation to two NSF projects. This occurred because both the PI and cognizant Departmental business officer mistakenly believed it was allowable if the compensation was funded by two separate NSF grants; with one grant paying for two months salary and the other award for the third month's salary. As a result, the University overcharged NSF $13,267 in labor costs (see Appendix A).

Employee Bonuses Incorrectly Allocated to NSF Grants

Pursuant to UCSD's Disclosure Statement,[7] its incentive award policy provides two different methods for charging employee bonuses to Federal sponsored projects, depending on whether such costs are directly or indirectly charged. Specifically, if the bonus costs are directly charged to the grant, then the amount must be allocated on a pro rata basis relative to the individual's direct salary charges to the subject grant. However, if the bonus costs are indirectly allocated to the sponsored project, the total amount is funded by the University's central assessment pool. But the audit found that the University did not comply with the subject policy and procedures when charging the costs for incentive awards received by of two of the sample employees.

- One employee was given a $5,000 incentive award, of which $4,500 was improperly charged directly to two NSF grants. Using the required pro rata basis, the bonus amount charged to NSF should have been $2,500 based on the individual's 50 percent salary charges to two subject grants: resulting in an overcharge of $2,000 (see Appendix A).

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[5] Of the total FY 2006 USCD expenditures of $104 million charged to NSF grants, $28 million, or 27 percent, was for labor costs.

[6] Excerpt from Paragraph V.B.1.a.(ii)(b) of NSF's *Award and Administration Guidelines.*

[7] OMB Circular A-21 requires an educational institution to file a Disclosure Statement (DS-2) to delineate its cost accounting practices.

- A second employee was given a $1,000 incentive award, which was funded through the UCSD's central assessment pool, but also inadvertently charged directly to an NSF grant. The $1,000 NSF amount is clearly an unallowable grant cost per the University's procedures (see Appendix A).

These improper charges occurred because cognizant ██████████████ officials were not aware of UCSD's incentive award policies and procedures. The PIs and senior researchers interviewed stated that an employee's incentive award is primarily based on the extra effort or exceptional contribution made by the individual to specific research projects. As such, they believed that the subject bonus costs were properly allocated to the benefiting projects and that it would be inequitable to allocate such costs using a pro rata basis relative to employee's compensation from all funding sources. Nevertheless, the ██████████████ practice was not consistent with UCSD policy and was not specifically disclosed to NSF and approved through the proposal process for the subject grants.

Potential Excess Labor Charges to NSF Projects

Without timely or appropriate controls for certifying labor effort reports, UCSD can provide less assurance to NSF that PARs are reliable in reasonably supporting salary and wages charged to sponsored projects. As discussed in the above report sections, control weaknesses resulted in the University (i) overcharging $51,317 (four percent) of total salary charges to NSF awards for seven employees (see Appendix A) and (ii) lacking adequate labor effort certifications for $49,595 (four percent) of NSF salary charges for two additional employees. In addition, late PAR certification or inadequate documentation to determine approval dates for 64 percent of NSF salary charges reviewed increases the risk that such certifications are not reliable, particularly given that 11 percent of such labor costs were certified more than six months late or were not dated. These control weaknesses could affect the remaining $27.5 million of FY 2006 labor charges to NSF grants, as well as the salary portion of UCSD's other $629 million of Federal awards.

Factors Contributing to Effort Reporting Weaknesses

These weaknesses occurred because the UCSD had not established adequate internal controls to provide for proper management and oversight of its payroll distribution and labor effort reporting system to mitigate the risk of the University's decentralized organizational structure for Federal grants management. With each of UCSD's 14 Departments and offices primarily responsible for management of its own portfolio of Federal grants, it is imperative for the University to ensure that (i) detailed written policies, procedures, and implementing guidance are established for its labor effort reporting system, (ii) adequate training is provided to all personnel involved in the effort reporting process to ensure a full understanding of job responsibilities, and (iii) monitoring of campus compliance is enhanced to ensure proper implementation of the established policies and procedures. Furthermore, UCSD has not performed a comprehensive independent internal evaluation to ensure that the PAR system was effective and in full compliance with Federal standards, thereby forfeiting an opportunity to identify and address needed improvements.

<u>Updated Timeliness Standards and Enhanced Monitoring Needed to Ensure Timely and Reliable
PAR Labor Certifications</u>

While UCSD has issued appropriate policy establishing timeframes for PAR compilation
and distribution at the end of each quarterly reporting period, it has not updated its 15-day
turnaround time for PAR review and certification since 1984. In addition, the University has
neither (i) provided formal training to ensure responsible campus personnel are aware of the
importance of timely and accurate PAR certifications nor (ii) established adequate monitoring
procedures or controls to achieve such objectives.

- *Out of Date and Ineffective PAR Timeliness Policy* - Interviews disclosed that the 15-day
  turnaround policy was not widely known by faculty and staff with PAR certification
  responsibilities because the UCSD did not provide formal training to all campus personnel
  with labor effort reporting responsibilities. As a result, campus personnel generally regarded
  the due date printed on the PAR as a theoretical goal rather than a strict deadline; thus
  meeting the due date has not been elevated to a status of significant importance within the
  University. This occurred because the 15 days allowed for PAR distribution, review,
  certification, and return to both Departmental offices and OPAFS was viewed as
  unreasonable and thus not enforceable. Interviews with personnel facilitating the process at
  the Departmental level confirmed the challenges of meeting the 15-day turnaround time
  associated with obtaining from certifying officials approvals for as many as 4,000 PARs on a
  quarterly basis. As such, the officials stated that very few PARs were returned to OPAFS by
  the preprinted due date.

- *Insufficient Central Oversight and Lack of Consistent Department Controls* – While OPAFS
  is primarily responsible for central oversight of UCSD's labor effort reporting process, it
  lacked established monitoring processes to ensure Departments were timely and accurately
  completing the PAR labor certifications. Specifically, OPAFS tracked outstanding PARs
  after their initial distribution to the Departments and performed limited follow-up. Upon
  their return, the PARs were noted as received and a *Missing PARs Report* was sent to each
  Department identifying the reports outstanding beyond the 15-day due date. The report
  listing was cumulative and included all outstanding PARs from the current as well as all
  previous quarterly reporting periods. However, OPAFS compiled and sent the status report
  just a few weeks after the PARs were initially distributed to the Departments and did not
  perform any additional follow-up efforts. In addition, we found no evidence that OPAFS
  reviewed the PARs for completeness to ensure certifying officials had properly provided (i)
  the separate notation of actual effort expended on each sponsored project, as required by
  University procedures, and (ii) explanations of any variances noted. In fact, the OPAFS
  employee, designated with primary responsibility for PAR processing, stated her review
  consisted solely of tracking the return of the reports.

  Furthermore, while each UCSD Department is assigned primary responsibility for
  ensuring that PAR certifications comply with established University policies, the
  Departments also did not have established procedures for ensuring timely and accurate PAR
  approvals. Without formal labor effort training, cognizant Departmental personnel and
  certifying officials were not aware of the importance of the labor effort reporting process to
  validate the significant sums of salaries and wages charged to Federal sponsored projects. In
  one instance, when interviewing Business Officers in a Department, we observed that there
  were very few PARs certified during one quarter of FY 2007 due to a key employee's
  absence. While FY 2007 was outside our audit period, we noted this situation to indicate the

lack of sufficient University emphasis given to the PAR labor effort certification process, since neither the Department nor OPAFS were aware of the significant number of missing PAR effort certifications. Also, it is another example where enhanced OPAFS central oversight and monitoring of PAR certifications would be beneficial to promoting a more reliable University labor effort certification process.

Currently, UCSD is implementing a new automated effort reporting system that should be fully operational in the spring of 2008. Since the new system will allow certifying officials to review and certify the PARs online, officials believe the time period to certify the reports should be shortened since the PARs will no longer be required to be physically distributed and returned. In addition, the system will automatically detect and reject PARs not properly completed in accordance with University procedures, and thus ensure that such errors can be readily identified for prompt resolution.

While we agree that the automated system should allow for easier monitoring of PAR timeliness and completeness, it is essential that UCSD establish formal monitoring processes and procedures. Monitoring processes should include periodic reminder notices for late PARs using an increasingly graduated scale to higher levels of UCSD management officials, such as the Department Chair, the Dean, and the Provost, as the period of delinquency increases. Also, senior management needs to explicitly notify all employees involved with the PAR process of the magnitude of the PAR timeliness issues and emphasize the importance of timely certification. To achieve an effective, reliable effort reporting system, senior management officials should be accountable for timely PAR completion.

Written Standards Needed to Preclude Salary Overcharges to Federal Awards

UCSD certifying officials approved PARs reflecting more effort than actually worked or allowed on NSF awards because they did not have a clear understanding of employee activities not directly benefiting Federal sponsored projects or limitations on certain types of employee compensation. This occurred due to the lack of formal written UCSD standards (i) defining institutional base salary for employees and (ii) instituting NSF's two month limitation on faculty summer salaries. The lack of such established University policies and procedures, coupled with the lack of formal labor effort training to ensure that certifying officials clearly understood PAR certification responsibilities, resulted in the inappropriate NSF salary charges identified during our audit.

- *Defining Institutional Base Salary* – Explicit written guidance is essential to clearly define *institutional base salary* for the various classes of employees charging salaries to sponsored projects; the different job activities related to instruction, research, and general administration; and which of those activities should be charged to University funds versus Federal grant funds. Without such guidance and formal training, UCSD faculty and research scientists interviewed improperly believed that if their primarily role was research, 100 percent of their effort was required to be charged to their Federal sponsored projects, even for time spent on administrative-type responsibilities such as grant proposal writing, working on University committees, public service, etc. By not defining the activities associated with employee institutional base salary, UCSD Departmental grants personnel were not aware of the need to establish appropriate job account numbers to separately account for employee effort spent on performing institutional-related activities that did not directly benefit Federal sponsored projects.

- *NSF's Two-Ninths Rule* – UCSD's policy for summer faculty compensation is not consistent with NSF's two-ninths rule limiting summer salaries to two months funding from all NSF grants. Specifically, the University's <u>Academic Personnel Manual</u> provides that "summer salaries are limited to a 57 day period, or one-third of the nine-month annual salary rate." Cognizant Academic Personnel Office officials stated that while the University may pay the entire three-month summer compensation for faculty members, another funding source is found for the extra month. Nevertheless, the University needs to include a specific reference to NSF's two-ninths rule in its written standards to ensure compliance with NSF award terms and conditions and to preclude any overcharges of excessive faculty summer salaries to its sponsored projects.

- *Inconsistent Formal Employee Training* - UCSD has a comprehensive and well-publicized labor effort training program on its user-friendly web site; encompassing a wide range of Federal grants management subjects, including most labor effort reporting policies and procedures. However, even though PIs are assigned primary responsibility for managing their Federal grants, they are not required to take the online labor effort training program. Thus, few of the sample employees interviewed during our audit had actually experienced any formal labor effort training. Because the PIs' primary focus is the research, having the policies available on the UCSD website is not sufficient to ensure the PIs adequately understand University and Federal labor effort reporting requirements and properly apply them to the sponsored projects for which they are responsible.

<u>Independent Internal Evaluation of the Payroll Distribution System Could be Improved</u>

Contrary to OMB Circular A-21 requirements, UCSD has not conducted a comprehensive independent evaluation of its payroll distribution and effort reporting system. Specifically, the University's Audit and Management Advisory Services (AMAS) develops an Internal Audit Plan that includes reviews of the UCSD's 35 core business functions at least once every 5 years based on a risk assessment of various factors. One of these core business functions is Cost Distribution – Effort Reporting. The Annual Audit Plan also includes Departmental audits that may include a payroll component. However, the University-wide assessment of the labor effort reporting system has not been sufficiently comprehensive nor has it been performed frequently enough to identify the internal control deficiencies noted during this audit. Accordingly, the AMAS approach does not satisfy the OMB requirement for a periodic overall assessment of the University's payroll distribution and labor effort reporting system to ensure its effectiveness and full compliance with Federal standards.

Such comprehensive evaluations would have likely disclosed the lack of sufficient internal controls for proper management and oversight of its PAR system given the decentralized nature of the UCSD's Federal grants management program. A thorough evaluation could have identified control weaknesses and recommended appropriate corrective actions. In particular, it will be essential for USCD to conduct such an independent evaluation of its new automated labor effort reporting system when it becomes operational to ensure its effectiveness and compliance with Federal standards.

Recommendations

We recommend that the NSF Director of the Division of Grants and Agreements and the Director of the Division of Institution and Award Support, coordinate with the cognizant audit agency, as needed, to implement the following recommendations:

1.1   Work with the UCSD officials to establish an internal control structure that utilizes the capabilities of its new automated effort reporting system to ensure a payroll distribution system and labor effort reporting system that reasonably reflects the actual effort/activity employees devote on sponsored projects. At a minimum, UCSD should take the following corrective actions:

    a. Develop a more realistic time frame for distributing and certifying effort reports and require the University's Departments to monitor the timely completion of PARs within the established time frame.

        UCSD Response to 1.1a

        The University of California will update its policy to reflect a more reasonable time frame for distributing and certifying effort reports. The updated policy will be part of the accountability guidance that will be issued by the Office of the President to all campuses.

        Auditor's Comments

        UCSD's actions are fully responsive to the audit recommendation. During the audit resolution process the University should provide NSF with the new policy.

    b. Require Departments to ensure PAR certifications are accurately completed in accordance with University procedures including signatures and separate notation of actual effort spent on each sponsored project.

        UCSD Response to 1.1b

        The University believes that ECERT, a new automated system for meeting federal effort reporting requirements, will ensure accuracy and completeness of effort reports. The ECERT system, which is integrated with the campus payroll system, will not allow an effort report to be processed as certified without the required electronic signature and notation of actual effort worked by the employee during the period.

        Auditor's Comments

        UCSD's actions are fully responsive to the audit recommendations. During our audit we viewed a demonstration of ECERT, and agree that the automated system should eliminate discrepancies in accuracy and completeness of effort reports.

    c. Require the Office of Post Award Financial Services (OPAFS) to monitor the PAR certification processes at the Department level to ensure adequate procedures are in place to provide timely and accurate PAR certifications. Such monitoring procedures

should include periodic reminder notices to follow-up on late PARs using an increasingly graduated scale of notification to higher level management officials.

UCSD Response to 1.1c

A key member of the ECERT implementation team will be transitioning into a training and compliance coordinator position within OPAFS and will provide a resource for monitoring certification timeliness, providing training to departments, maintaining training materials and web content, and notifying management officials when departments are at risk of being out of compliance with federal requirements related to effort reporting.

Auditor's Comments

UCSD's actions are fully responsive to the audit recommendations. The individual to be transitioned has the requisite knowledge and experience to effectively monitor UCSD's effort reporting processes.

d. Assign appropriate UCSD senior management officials, such as Department Chairs, specific accountability for timely and accurate PAR certifications.

UCSD Response to 1.1d

The University of California Office of the President is working with UC campuses to develop appropriate accountability for effort reporting. UCSD intends to commit senior level personnel to the tasks of developing and implementing accountability procedures for the campus.

Auditor's Comments

Once implemented, UCSD's proposed corrective actions should address our audit recommendations, provided its newly adopted accountability procedures assign clear accountability for effort reporting timeliness and accuracy to appropriate senior UCSD management official. The University should provide NSF with the new accountability policy.

e. Ensure senior UCSD management formally notify all campus staff involved in the PAR certification process of the magnitude of the late certification issue and emphasize the importance of timely and accurate PI review and certification of such reports within the University's established time frame.

UCSD Response to 1.1e

The University will provide notification in conjunction with a notice regarding the new ECERT system which will be issued by the Vice Chancellors' of Research, Academic Affairs, Health Sciences and Business Affairs to all applicable faculty and staff. This formal notification will emphasize that all effort must be certified in a timely manner, and will include hyper links to the site containing campus policies and accountability procedures for Effort Reporting.

Once implemented, UCSD's proposed corrective actions should address our audit recommendations. The University should provide a copy of the notification, when issued, to NSF.

f. Develop clear written procedures and guidance defining the typical instructional, research, and administrative work responsibilities included in the institutional base salary for various types of UCSD employees, and identifying which of those activities do not directly benefit and should not be charged to Federal awards.

   UCSD Response to 1.1f

   The University plans to transition a member of the current ECERT implementation team to a central office support role in the Office of Post Award Financial Services for the purpose of permitting an expanded review of existing procedures and guidance in place at UCSD, including those relating to allowable costs and institutional base salary.

   Auditor's Comments

   Once implemented, UCSD's proposed corrective actions should address our audit recommendations. The individual to be transitioned has the requisite knowledge and experience to effectively develop the appropriate guidance with respect to allowable costs and institutional base salary.

g. Implement a policy limiting charges to NSF sponsored projects for faculty summer salaries to two-ninths of an individual's base institutional compensation from all NSF projects.

   UCSD Response to 1.1g

   The University agrees that the NSF two-ninths rule applies and believes it is addressed by existing policy which requires compliance with applicable Federal requirements contained in Office of Management and Budget Circulars A-21, Cost Principles for Educational Institutions, and A-110, Uniform Administrative Requirements for Grants and Other Agreements with Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations. UCSD will apply additional personnel resources to analyze salary payments made to federally-sponsored employees and to work with campus departments to ensure knowledge of and compliance with the two-ninths rule.

   Auditor's Comments

   Once implemented, UCSD's proposed corrective actions should decrease the likelihood of further two-ninth rule violations. However, because violation of such a rule can be inadvertent and an understandable consequence of a program in which

research is emphasized in the summer months, we believe that addressing the two-ninths rule in the University's written guidance and policies would be prudent.

h. Require UCSD to perform a review to ensure Departments are properly implementing the University's incentive award procedures and allocating the correct amounts to sponsored research projects.

UCSD Response to 1.1h

The University agrees that incentive award payments should be made in accordance with UCSD policy and representations to Federal agencies. One of the functions of the position to be established in OPAFS will be to periodically extract and analyze salary payments made to federally sponsored employees and to work with campus departments to ensure compliance with federal regulations such as incentive award allocation procedures.

Auditor's Comments

Once implemented, UCSD's proposed corrective actions should address our audit recommendations.

1.2   Work with the UCSD officials to ensure the existing labor effort training program addresses Federal and UCSD requirements, is kept up to date, and that all officials involved in PAR process take the training on a regular basis. Such training should include a thorough discussion of PAR certification responsibilities/requirements and the various types of employee activities that do not directly benefit and should, therefore, not be charged to Federal awards.

UCSD Response to 1.2

The University intends to assign to the new position in OPAFS responsibility for ensuring that procedures and guidance related to effort reporting are documented and made available to campus, and that training addresses these topics.

Auditor's Comments

Once implemented, UCSD's proposed corrective actions should address our audit recommendations. The individual to be transitioned has experience providing training on the new ECERT effort reporting system and is knowledgeable of effort reporting regulations, PAR certification requirements and allowable cost rules, and thus should be able to develop and deliver effective training programs.

1.3   Require UCSD to establish a formal requirement and conduct an independent evaluation of the PAR system to ensure its effectiveness and full compliance with Federal, NSF, and University standards. Such a requirement should include procedures to ensure an effective and systemic review that will identify reasons for any deficiencies and make appropriate recommendations, identify the specific office responsible for performing the evaluation, and how often such an evaluation should be conducted.

UCSD Response to 1.3

UCSD Audit & Management Advisory Services will periodically perform independent, comprehensive reviews of the ECERT system sufficient in scope to meet Federal and NSF requirements on an approximate three to five year cycle, with the frequency influenced by changes in systems, processes or regulations.

Auditor's Comments

Once implemented, UCSD's proposed corrective actions should address our audit recommendations.

1.4   Resolve the $85,128 in total questioned salary costs (see Appendix A) resulting from seven employees overcharging NSF awards for excessive salary amounts or for work activities not directly benefiting the research project.

UCSD Response to 1.4

UCSD management will coordinate with NSF program personnel to resolve all questioned costs.

Auditor's Comments

UCSD's planned actions are fully responsive to the audit recommendations.

2. UCSD Lacks Comprehensive Policies to Ensure Full Compliance With Federal Grant Requirements

Federal regulations require grant recipients to employ sound management practices and have written procedures to ensure costs charged to sponsored projects are reasonable, allocable, and allowable in accordance with Federal cost principles and the terms and conditions of the award. However, the audit found that UCSD lacked an established procedure for computing an estimated dollar amount for sponsored projects without any paid faculty or senior researcher labor effort to include in the University's organized research base. In addition, the University's established policy for extra faculty compensation on sponsored projects was not consistent with Federal regulations. Such lack of adequate written procedures to ensure full compliance with Federal cost principles could result in excessive indirect costs and salary and wages being charged to NSF and all Federal sponsored projects. This occurred because of the lack of adequate UCSD priority given to the task of ensuring that written University procedures were current and appropriate to ensure grant charges were fully compliant with Federal cost principles.

Lack of UCSD Policy for Imputing PI Effort Devoted to Federal Sponsored Projects

OMB Circular A-21 requires a payroll distribution system that will "reasonably reflect the activity for which individuals are compensated by the institution."[8] The system must encompass the time and effort expended by employees on both sponsored projects and all other activities on an integrated basis. Further, a January 2001 OMB Clarification Memorandum[9] provides additional guidance for verification requirements for PI effort on sponsored projects. The Memorandum makes clear that the payroll distribution system will include both PI salaries charged directly to sponsored projects as well as salary-related cost sharing contributed. In addition, the Memorandum states that "If a research sponsored agreement shows no faculty (or senior researchers) effort, paid or unpaid by the Federal Government, an estimated amount must be computed by the university and included in the organized research base" used for computing its negotiated Federal indirect cost rate.

However, contrary to the OMB Clarification Memorandum, we found that UCSD did not have an established policy or process for imputing such PI effort to include in its organized research base. The Director of Financial Analysis, who leads the development of the University's negotiated Federal indirect cost rate, stated that there was no need for such a process because either PI salary is charged to the sponsored project or the level of PI effort is insignificant and does not warrant reporting. However, UCSD was not able to provide any evidence to document that the University had performed an evaluation of PI committed effort on its Federal sponsored projects to support this assertion.

In fact, we found that one of the seven PIs reviewed had not requested any salary support in his NSF proposal budget, but indicated weekly participation in overseeing the project in the narrative description portion of the proposal; a participation level for which effort should have been imputed. Ultimately, the PI did charge summer salary to the subject award, but the approved grant budget should have triggered a process to impute PI effort, as required by the OMB Circular A-21 Clarifying Memorandum. It is clear that most Federally-funded research programs require

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[8]   Paragraph J10.b.(2)(a)(ii) of OMB Circular A-21, *Cost Principles for Educational Institutions*.
[9]   OMB Memorandum M-01-06, dated January 5, 2001, *Clarification of OMB A-21 Treatment of Voluntary Uncommitted Cost Sharing and Tuition Remission.*

some level of committed faculty effort throughout the year to manage the work being performed to ensure project objectives are being achieved.

The OMB Memorandum makes it clear that when there is no faculty effort reported on Federal sponsored projects, an estimated amount must be computed. Without the required process to impute PI salary costs to include in the organized research base, UCSD's Federal indirect cost rate could be overstated and result in greater indirect costs paid by the Federal Government. For example, other universities have estimated the imputed PI effort at approximately five percent of total salary costs. In FY 2006, UCSD had total labor costs of over $28 million charged to NSF grants and, using the five-percent imputed rate, $1.4 million should have been added to the organized research base, thus lowering the University's indirect cost rate applied to all Federal grants. This occurred because the UCSD did not give adequate emphasis to keeping abreast of new or revised changes to Federal grant regulations and performing a thorough evaluation to determine the changes in University procedures required to address any revisions in Federal grant requirements. Thus, while the OMB Clarification Memorandum was specifically referenced in the OPAFS Contract and Grant Manual, the Director of Financial Analysis was the only campus official interviewed during the audit that was familiar with the subject Memorandum.

<u>UCSD Policy for Extra Academic Compensation Is Inconsistent With Federal Requirements</u>

OMB Circular A-21, paragraph J10.d.(1), provides specific Federal requirements for determining the appropriate academic year salary rates for faculty members working on sponsored projects. Specifically, the Circular delineates that faculty members, who function as consultants or otherwise contribute to a sponsored research project conducted by another faculty member in the same institution, require no additional compensation above institutional base salary because such "intra university consulting is assumed to be untaken as a university obligation." However, in usual cases, Circular A-21 does provide for extra compensation but explicitly states that "any charges for such work representing extra compensation above the base salary are allowable provided that **such consulting arrangements are specifically provided for in the agreement or approved in writing by the sponsoring agency**." (emphasis added)

However, contrary to A-21 requirements, UCSD's policy did not require requesting prior sponsoring agency approval for payment of such extra compensation to academic personnel. Rather, the University's <u>Academic Personnel Manual</u> only required a review of the Federal grant to determine if such extra compensation was prohibited, as follows:

> *"If not regularly engaged on the project concerned, a member of the faculty may, on occasion, receive additional compensation for consultant services on projects conducted under the auspices of the University. If the project is financed by extramural funds, the grant or contract should be examined to determine whether it prohibits such compensation."*

As a result, without following the required A-21 process, UCSD could have potentially charged unallowable additional compensation for academic personnel to NSF and other Federal sponsored projects. This occurred because the University believed that their established procedure was consistent with the overall intent of the A-21 requirement for the payment of extra faculty compensation for intra university consulting.

<u>Recommendations</u>

We recommend that the NSF Director of the Division of Grants and Agreements and the Director of the Division of Institution and Award Support, coordinate with the cognizant audit agency, as needed, to require UCSD to implement the following recommendations:

2.1   Develop a policy and establish a methodology for estimating the amount of faculty salary costs to include in the organized research base for Federal sponsored agreements with no reported PI labor effort. Ensure the calculation of such estimated amounts is supported by adequate documentation and included in the organized research base for computing the Federal indirect cost rate.

> <u>UCSD Response to 2.1</u>
>
> UCSD plans to require Principal Investigators to include a minimum percentage of effort on federal proposals and to track this effort tracked in accordance with campus policy.
>
> <u>Auditor's Comments</u>
>
> Once implemented, UCSD's proposed corrective actions should prevent situations in which Federal sponsored agreements have no reported PI labor effort. The University should include in its requirement a reminder that requested effort constitutes committed effort and must be applied to the program.

2.2   Revise UCSD policy for extra compensation for academic personnel to obtain prior Federal grantor agency approval for faculty charges for providing intra-university consulting on sponsored projects.

> <u>UCSD Response to 2.2</u>
>
> Because the policy cited is a university-wide policy, the University of California, Office of the President plans to take action to revise the Academic Personnel Manual to comply with the OMB A-21 requirements for obtaining approval to allow additional consulting income.
>
> <u>Auditor's Comments</u>
>
> Once implemented, UCSD's proposed corrective actions should address our audit recommendations. A copy of the revised policy should be provided to NSF.

Schedule of Questioned Salaries, Fringe Benefits and Related Indirect Costs
Fiscal Year 2006

Administrative Costs Charged to NSF Projects					
Sample Number	Award Number	Salary Costs	Fringe Benefits	Indirect Costs	Total
27	█████████	$ 21,216	2,714	11,032	34,962
6 (a)	█████████	$ 1,102	99	573	1,774
6 (a)	█████████	$ 1,102	99	573	1,774
22	█████████	$ 3,485	842	1,813	6,140
31	█████████	$ 8,145	1,417	4,235	13,797
Subtotal		**$ 35,050**	**5,171**	**18,226**	**58,447**

Two-Ninths Rule					
Sample Number	Award Number	Salary Costs	Fringe Benefits	Indirect Costs	Total
30 (b)	█████████	$ 13,267	1,666	6,899	21,832
Subtotal		**$ 13,267**	**1,666**	**6,899**	**21,832**

Incentive Awards					
Sample Number	Award Number	Salary Costs	Fringe Benefits	Indirect Costs	Total
6(c)	█████████	$ 900	81	477	1,458
6(c)	█████████	$1,100	99	583	1,782
20	█████████	$ 1,000	89	520	1,609
Subtotal		**$ 3,000**	**269**	**1,580**	**4,849**
TOTALS		**$ 51,317**	**7,106**	**26,705**	**85,128**

Notes:
a) Reflects 50/50% allocation
b) Reflects questioning all charges to Award # █████████
c) Reflects 45/55% allocation to actual accounts charged for bonus

UNIVERSITY OF CALIFORNIA, SAN DIEGO   UCSD

BERKELEY · DAVIS · IRVINE · LOS ANGELES · RIVERSIDE · SAN DIEGO · SAN FRANCISCO   SANTA BARBARA · SANTA CRUZ

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LA JOLLA, CALIFORNIA 92193

April 30, 2008

████████████████
McBride, Lock & Associates
1111 Main Street
Kansas City, MO 64106

Dear ████████

We are in receipt of the draft audit report for the National Science Foundation Audit of UC San Diego's Payroll Distribution System. Our response to the findings and recommendations are as follows:

Finding 1. Insufficient Administrative Oversight of the University's PAR System Affects Reliability of Effort Reports

Federal regulations require that salary and wage charges to sponsored projects be supported by labor effort reports signed and approved by the employee or an official who is in a position to know whether the work was performed. Such reports are required to represent 100 percent of an individual's activity and provide after-the-fact confirmation or determination that the reported effort reasonably represents the actual employee effort expended on sponsored projects. Although Federal requirements do not specify when a labor effort report should be completed, University officials should provide the after-the-fact confirmation as close to the end of the reporting period as possible to ensure its reliability.

Recommendations

We recommend that the NSF Director of the Division of Grants and Agreements and the Director of the Division of Institution and Award Support, coordinate with the cognizant audit agency, as needed, to implement the following recommendations:

1.1   Work with the UCSD officials to establish an internal control structure that utilizes the capabilities of its new automated effort reporting system to ensure a payroll distribution system and labor effort reporting system that reasonably reflects the actual effort/activity employees devote on sponsored projects. At a minimum, UCSD should take the following corrective actions:

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a. Develop a more realistic time frame for distributing and certifying effort reports and require the University's Departments to monitor the timely completion of PARs within the established time frame.

UCSD Response to 1.1a
UC Policy is currently being updated to reflect a more reasonable time frame for distributing and certifying effort reports. The updated policy will be part of the accountability guidance that will be issued by the Office of the President to all campuses. Certifications of effort after the established due date may be allowed under certain circumstances, and will require justification for tardiness. Reports will be made available to departments to assist with monitoring timeliness.

b. Require Departments to ensure PAR certifications are accurately completed in accordance with University procedures including signatures and separate notation of actual effort spent on each sponsored project.

UCSD Response to 1.1b
ECERT, a new system for meeting federal effort reporting requirements, is now in place. This system has replaced the paper PAR certification process which was reviewed during the audit. The ECERT system is fed directly from the campus payroll system (PPS). Salaries are entered by department payroll personnel based on appointment letters or other supporting documents, and payroll is determined based on where the employee is working in a given payroll period. ECERT ensures that an electronic signature and a separate notation of actual effort spent on each sponsored project are secured before effort is qualified as "certified."

c. Require the Office of Post Award Financial Services (OPAFS) to monitor the PAR certification processes at the Department level to ensure adequate procedures are in place to provide timely and accurate PAR certifications. Such monitoring procedures should include periodic reminder notices to follow-up on late PARs using an increasingly graduated scale of notification to higher level management officials.

UCSD Response to 1.1c
The UCSD Office of Post Award Financial Services will be transitioning a member of the ECERT implementation team into a training and compliance coordinator position that will assist in the expansion of central office support for monitoring certification timeliness, providing training to departments, maintaining training materials and web content, and notifying management officials when departments are at risk of being out of compliance with federal requirements related to effort reporting.

d. Assign appropriate UCSD senior management officials, such as Department Chairs, specific accountability for timely and accurate PAR certifications.

UCSD Response to 1.1d

UCOP is working with campuses to formulate and to issue accountability guidance to the UC campuses on actions to be taken when certifications of effort are not completed in a timely manner according to policy. The UCSD Office of the Vice Chancellor for Research and the UCSD Office of Post Award Administration will work with UCSD senior management officials, department chairs, management service officers and fund managers to develop and implement accountability procedures for this campus.

e. Ensure senior UCSD management formally notify all campus staff involved in the PAR certification process of the magnitude of the late certification issue and emphasize the importance of timely and accurate PI review and certification of such reports within the University's established time frame.

UCSD Response to 1.1e
A formal UCSD campus notice will be issued by the Vice Chancellors' of Research, Academic Affairs, Health Sciences and Business Affairs announcing the implementation of the new ECERT system, emphasizing that all effort must be certified in a timely manner. The notice will be issued through the campus email distribution that will include all applicable faculty and staff, and will include hyper links to the site containing campus policies and accountability procedures for Effort Reporting.

f. Develop clear written procedures and guidance defining the typical instructional, research, and administrative work responsibilities included in the institutional base salary for various types of UCSD employees, and identifying which of those activities do not directly benefit and should not be charged to Federal awards.

UCSD Response to 1.1f
The planned transition of the current ECERT implementation team member to a central office support role in the Office of Post Award Financial Services will permit an expanded review of existing procedures and guidance in place at UCSD. A primary function of this position will be to ensure that procedures and guidance related to effort reporting, including defining the activities which should not be charged to Federal Awards, are documented and made available to campus.

g. Implement a policy limiting charges to NSF sponsored projects for faculty summer salaries to two-ninths of an individual's base institutional compensation from all NSF projects.

h. Require UCSD to perform a review to ensure Departments are properly implementing the University's incentive award procedures and allocating the correct amounts to sponsored research projects.

UCSD Response to 1.1g and 1.1h
Existing University of California policy requires that expenditures for budgets that include Federal grants must comply with any applicable Federal requirements

contained in Office of Management and Budget Circulars A-21, Cost Principles for Educational Institutions, and A-110, Uniform Administrative Requirements for Grants and Other Agreements with Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations. While this policy does not specify the NSF two-ninths rule or other agency specific requirements, UCSD agrees that these limitations apply.

One of the functions of the position referenced in our response to 1.1c will be to periodically extract and analyze salary payments made to federally sponsored employees and to work with campus departments to ensure compliance with federal regulations such as the NSF two-ninths rule and incentive award allocation procedures.

1.2   Work with the UCSD officials to ensure the existing labor effort training program addresses Federal and UCSD requirements, is kept up to date, and that all officials involved in PAR process take the training on a regular basis. Such training should include a thorough discussion of PAR certification responsibilities/requirements and the various types of employee activities that do not directly benefit and should, therefore, not be charged to Federal awards.

UCSD Response to 1.2
One of the functions of the position referenced in our response to 1.1c will be to ensure that procedures and guidance related to effort reporting, including defining the activities which should not be charged to Federal Awards, are documented and made available to campus. Training will include content on Blink, Staff Education classes, campus-wide memos, policy, and helpdesk support.

1.3   Require UCSD to establish a formal requirement and conduct an independent evaluation of the PAR system to ensure its effectiveness and full compliance with Federal, NSF, and University standards. Such a requirement should include procedures to ensure an effective and systemic review that will identify reasons for any deficiencies and make appropriate recommendations, identify the specific office responsible for performing the evaluation, and how often such an evaluation should be conducted.

UCSD Response to 1.3
UCSD Audit & Management Advisory Services performs assurance services to assist the University in meeting its oversight and operating responsibilities. Audit resources are generally allocated using a risk based approach. In the future, Audit & Management Advisory Services will periodically perform independent, comprehensive reviews of the ECERT system sufficient in scope to meet Federal and NSF requirements on an approximate three to five year cycle, with the frequency influenced by changes in systems, processes or regulations. As part of these reviews, the status of corrective actions ensuing from previous internal as well as external reviews will be tracked and evaluated, and reported to senior campus management until ultimate implementation.

1.5   Resolve the $85,128 in total questioned salary costs (see Appendix A) resulting from seven employees overcharging NSF awards for excessive salary amounts or for work activities not directly benefiting the research project.

> UCSD Response to 1.5
> UCSD management will coordinate with NSF program personnel to resolve all questioned costs.

Finding 2. UCSD Lacks Comprehensive Policies to Ensure Full Compliance With Federal Grant Requirements

Federal regulations require grant recipients to employ sound management practices and have written procedures to ensure costs charged to sponsored projects are reasonable, allocable, and allowable in accordance with Federal cost principles and the terms and conditions of the award. However, the audit found that UCSD lacked an established procedure for computing an estimated dollar amount for sponsored projects without any paid faculty or senior researcher labor effort to include in the University's organized research base. In addition, the University's established policy for extra faculty compensation on sponsored projects was not consistent with Federal regulations. Such lack of adequate written procedures to ensure full compliance with Federal cost principles could result in excessive indirect costs and salary and wages being charged to NSF and all Federal sponsored projects. This occurred because of the lack of adequate UCSD priority given to the task of ensuring that written University procedures were current and appropriate to ensure grant charges were fully compliant with Federal cost principles.

Recommendations

We recommend that the NSF Director of the Division of Grants and Agreements and the Director of the Division of Institution and Award Support, coordinate with the cognizant audit agency, as needed, to require UCSD to implement the following recommendations:

2.1   Develop a policy and establish a methodology for estimating the amount of faculty salary costs to include in the organized research base for Federal sponsored agreements with no reported PI labor effort. Ensure the calculation of such estimated amounts is supported by adequate documentation and included in the organized research base for computing the Federal indirect cost rate.

> UCSD Response to 2.1
> UCSD will require Principal Investigators to include a minimum percentage of effort on federal proposals. This effort will be tracked in accordance with campus policy.

2.2   Revise UCSD policy for extra compensation for academic personnel to obtain prior Federal grantor agency approval for faculty charges for providing intra university consulting on sponsored projects.

UCSD Response to 2.2

The Academic Personnel Manual policy cited in the audit report is a university-wide policy. The University of California, Office of the President plans to take action to revise the Academic Personnel Manual to comply with the OMB A-21 requirements for obtaining approval to allow additional consulting income.

Thank you for the opportunity to answer the findings that were identified in your audit. If you have any questions related to the responses provided, please contact me at 858-534-3617.

Sincerely,

Audit & Management Advisory Services
University of California, San Diego